

Claims

WHAT IS CLAIMED IS:

1 1. A method for policy and attribute based access to a resource, comprising:
2 interacting with a principal for authenticating the principal based on acquired
3 identity information;
4 assembling an identity configuration for the principal;
5 generating a service contract for the principal, a service, and a resource,
6 wherein the principal uses the service to access the resource, and wherein the
7 service contract includes a selective number of resource access policies and
8 attributes which are included in the identity configuration; and
9 transmitting an access statement to the principal for use when the principal
10 interacts with the service.

1 2. The method of claim 1 further comprising generating alias identity
2 information for the identity information and including the alias identity information
3 with at least a portion of the access statement.

1 3. The method of claim 2 further comprising:
2 receiving the alias identity information from the service;
3 mapping the alias identity information back to the identity information;
4 authenticating the identity information; and
5 permitting the service to the resource based on the service contract.

1 4. The method of claim 1 wherein the transmitting of the access statement
2 further includes representing the access statement as an assertion that is directly
3 used to acquire the identity information of the principal.

1 5. The method of claim 1 wherein the transmitting of the access statement
2 further includes representing the identity information of the principal as an artifact

3 that can be indirectly used to acquire the identity information.

1 6. The method of claim 1 further comprising removing the service contract
2 when an active session with the principal expires.

1 7. The method of claim 1 wherein the interacting further includes establishing a
2 secure communication with the principal.

1 8. A method for policy and attribute based access to a resource, comprising:
2 receiving a session request for access to a resource, wherein the session
3 request is sent from a service and includes alias identity information for a principal;
4 mapping the alias identity information to identity information of the
5 principal;
6 authenticating the identity information;
7 acquiring a service contract for the principal, the service, and the resource,
8 wherein the service contract includes selective resource access policies and
9 attributes which are permissibly used by the service on behalf of the principal; and
10 establishing a session with the service, wherein the session is controlled by
11 the service contract.

1 9. The method of claim 8 further comprising accessing an identity
2 configuration for the principal in order to acquire the selective resource access
3 policies and attributes included within the service contract.

1 10. The method of claim 8 further comprising denying access attempts made by
2 the service during the session when the access attempts are not included within the
3 service contract.

1 11. The method of claim 8 further comprising terminating the session when an
2 event is detected that indicates the service contract is compromised or has expired.

1 12. The method of claim 8 further comprising establishing the service contract
2 with the principal prior to receiving the session request.

1 13. The method of claim 12 further comprising reusing the service contract to
2 establish one or more additional sessions with the service, wherein the one or more
3 additional sessions are associated with one or more additional session requests made
4 by the service.

1 14. The method of claim 12 wherein the establishing further includes
2 establishing the service contract with the principal in response to a redirection
3 operation performed by a proxy that intercepts a browser request issued from the
4 principal to the service for purposes of accessing the resource.

1 15. A policy and attribute based resource access system, comprising:
2 an identity authenticator;
3 an identity configuration aggregator; and
4 a resource session administrator;
5 wherein the identity authenticator authenticates a principal for access to a
6 resource based and generates a service contract, and wherein the identity
7 configuration aggregator generates an identity configuration for the principal and
8 the resource, the service contract defines selective resource access policies and
9 attributes from the identity configuration, and wherein the resource session
10 administrator establishes a session with a service and ensures that access attempts
11 made by the service during the session conform to the service contract.

1 16. The policy and attribute based resource access system of claim 15 wherein
2 the system is implemented as a proxy server.

1 17. The policy and attribute based resource access system of claim 15 wherein
2 the service contract is generated in response to an intercepted resource-access
3 request made by the principal to the service.

1 18. The policy and attribute based resource access system of claim 17, wherein
2 the resource-access request is redirected by a Hyper Text Transfer Protocol (HTTP)
3 Proxy serving as an intermediary between the principal and the service.

1 19. The policy and attribute based resource access system of claim 15, wherein
2 the service contract is generated in response to a redirected resource-access request
3 made by the principal to the service, and wherein the service redirects the resource-
4 access request to the system.

1 20. The policy and attribute based resource access system of claim 15, wherein
2 the service contract expires when an active session with the principal expires.

1 21. A policy and attribute based resource session manager, residing in a
2 computer-accessible medium, comprising instructions for establishing a session
3 with a resource, the instructions when executed performing the method of:
4 receiving alias identity information from a service, wherein the alias identity
5 information is associated with a principal;
6 requesting a mapping of the alias identity information to principal identity
7 information;
8 requesting authenticating of the identity information;
9 requesting a service contract for the principal, the service and a resource,
10 wherein the service contract includes selective resource access policies and
11 attributes derived from an identity configuration; and
12 establishing a session with the service and the resource, wherein the session
13 is controlled by the service contract.

1 22. The policy and attribute based resource session manager of claim 21 having
2 instructions further comprising, permitting the service to indirectly access an
3 identity store which represents the resource, and wherein the identity store includes
4 secure information related to the principal.

1 23. The policy and attribute based resource session manager of claim 21 having
2 instructions further comprising terminating the session when the service contract
3 expires or is compromised.

1 24. The policy and attribute based resource session manager of claim 21,
2 wherein the requesting of the mapping further includes interacting with an alias
3 translator.

1 25. The policy and attribute based resource session manager of claim 21,
2 wherein the requesting of authentication further includes interacting with an
3 identification authenticator.

1 26. The policy and attribute based resource session manager of claim 21 having
2 instructions further comprising managing the session by acting as an intermediary
3 between the service and a legacy Lightweight Directory Access Protocol (LDAP)
4 application which has access privileges to the resource.

1 27. The policy and attribute based resource session manager of claim 26,
2 wherein the receiving further includes intercepting a session request that is issued
3 from the service for the legacy LDAP application, wherein the session request
4 includes the alias identity information.

1 28. The policy and attribute based resource session manager of claim 27 having
2 instructions further comprising managing the session with respect to the service as if
3 the policy based resource session manager were the legacy LDAP application.

1 29. The policy and attribute based resource session manager of claim 21 wherein
2 the instructions for establishing the session further includes defining the selective
3 resource access policies as at least one of a read operation and a write operation and
4 defining the attributes as selective confidential data related to the principal, wherein

- 5 the policies define operations that are permissible on the attributes, and wherein
- 6 values for the attributes reside in the resource.